

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicant: Francois PACHET

Filed: Filed Concurrently Herewith

Title of Invention: INFORMATION SEQUENCE EXTRACTION AND  
BUILDING APPARATUS e.g. FOR PRODUCING  
PERSONALIZED MUSIC TITLE SEUENCES

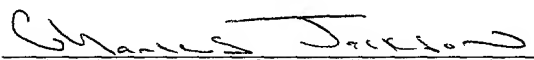
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New York, NY 10151

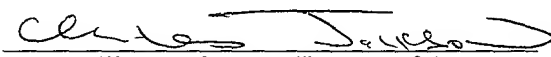
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**PRELIMINARY AMENDMENT**

Assistant Commissioner for Patents  
Box Patent Application (35 U.S.C. 111)  
Washington, D.C. 20231

Sir:

Before the issuance of the first Office Action, please amend the above-identified application as follows:

**IN THE CLAIMS:**

Please amend 3, 5, 6, 10, 12, 14, 17, 20, 22, 24, 25, 28-32, 35-37, 39, 41, 43, 46, 48, 50, 52, 53, 55, 56 and 57 as follows:

3. (Amended) Apparatus according to claim 1, wherein said segmentation means (6) is adapted to receive segmentation data (4) through a second input (I2) separate from said information (2) to be stored.
5. (Amended) Apparatus according to claim 1, wherein said segmentation means (6) is adapted to extract said segmentation data (4) from said sequence of information.
6. (Amended) Apparatus according to claim 1, wherein said input means (I1) is adapted to receive said sequence of information (2) in the form audio data, and wherein said segmentation means (6) is operative to form segments (seg.1-seg.n) each corresponding to a music title in said sequence of information.
10. (Amended) Apparatus according to claim 1, further comprising:
  - identification means (26) connectable to a source of identification data identifying information items in said sequence of information (2), said identification means extracting at least some of said identification data to form an identifier (id.1-id.n), and
  - combining means (28) for combining with a given segment (seg.i) an identifier (id.i) corresponding thereto,
 said storage means (32) further being arranged to store said identifier in association with said segment.
12. (Amended) Apparatus according to claim 11, wherein said attribute corresponds to at least one type under which a music title can be classed (e.g. Rock, Jazz, Light Classical, ...).
14. (Amended) Apparatus according to claim 1, further comprising similarity analysing means (44, 44-1) for producing automatically similarity relations between stored segments (seg.1-seg.n) in terms of their closeness in said sequence of stored segments.

17. (Amended) Apparatus according to claim 14, wherein said analysing means (44, 44-1) is arranged to calculate said closeness value for said information item considered (ti) by attributing a first closeness value each time said other information item (tj) appears just before or just after in said sequence,

said first values being cumulated over said sequence to yield a cumulated value indicating the closeness of said pair of information items (ti, tj).

20. (Amended) Apparatus according to claim 1, wherein said apparatus further comprises music programme generating means (48, 50) for building a sequence of information items from said stored segments (seg.1-seg.n).

22. (Amended) Apparatus according to claim 20, wherein said programme generating apparatus (48, 50) is operative to build said sequence of information items in response to similarity relations between stored segments in terms of their closeness in said sequence of stored segments, in which information items are concatenated taking their closeness into account.

24. (Amended) Apparatus according to claims 22, wherein said programme generating means (48, 50) is further responsive to said similarity relations to create a sequence of information items in which information items close to disliked information items are de-emphasised and/or in which information items close to liked information items are emphasised.

25. (Amended) Apparatus according to claim 20, wherein said programme generating means (48, 50) is responsive to a selected attribute (e.g. type of music) of said information items, according to claim 11, said selected attribute being entered through a corresponding user input (54), to create a sequence of information items containing at least a preponderance of information items falling under said selected attribute.

28. (Amended) Apparatus according to claim 26, wherein said programme generating means (48, 50) is further responsive to said similarity relation relations between stored segments in terms of their closeness in said sequence of stored segments, such that a said information item not falling under a said selected attribute (e.g. type of music) is entered in said created sequence if and where it has a predetermined degree of closeness, as determined by said similarity relations, with an adjacent information item of said sequence.

29. (Amended) Apparatus according to claim 20, wherein said programme generating means (48, 50) comprises means for labelling and storing said created sequences as objects which can be selectively exported outside said apparatus.

30. (Amended) Apparatus according to claim 1, further comprising means for importing said created sequences.

31. (Amended) Apparatus according to claim 1 connected to playback means for receiving said segments of a selected created sequence and expressing the data contained therein in a form intelligible to a user (e.g. music, images, etc.).

32. (Amended) Use of the apparatus according to claim 1 for producing at least one taste, said taste being a user taste comprised of a sequence of information items produced by taking account feedback from said user, or a generic taste comprised of a sequence.

35. (Amended) Method according to claim 33, wherein said segmentation data (4) is extracted from a website associated to a source of said sequence of information (2).

36. (Amended) Method according to claim 33, wherein said segmentation data (4) is extracted from said sequence of information.

37. (Amended) Method according to claim 33, wherein said sequence of information (2) is received in the form audio data, and wherein said segmentation (6) serves to form segments (seg.1-seg.n) each corresponding to a music title in said sequence of information.

39. (Amended) Method according to claim 33, further comprising the steps of:

- identifying (26) from a source of identification data identifying information items in said sequence of information (2), said identification step extracting at least some of said identification data to form an identifier (id.1-id.n), and

- combining (28) for with a given segment (seg.i) an identifier (id.i) corresponding thereto,

said identifier being stored (32) in association with said segment.

41. (Amended) Method according to claim 40, wherein said attribute corresponds to at least one type under which a music title can be classed (e.g. Rock, Jazz, Light Classical, ...).

43. (Amended) Method according to claim 33, further comprising the steps (44, 44-1) of producing automatically similarity relations between stored segments (seg.1-seg.n) in terms of their closeness in said sequence of stored segments.

46. (Amended) Apparatus according to claim 44, wherein said analysing step (44, 44-1) involves calculating said closeness value for said information item considered (ti) by attributing a first closeness value each time said other information item (tj) appears just before or just after in said sequence,

said first values being cumulated over said sequence to yield a cumulated value indicating the closeness of said pair of information items (ti, tj).

48. (Amended) Method according to claim 33, further comprising the step of generating (48, 50) music programme generating by building a sequence of information items from said stored segments (seg.1-seg.n).

50. (Amended) Method according to claim 48, wherein said programme generating step (48, 50) involves building said sequence of information items in response to said similarity relations between stored segments in terms of their closeness in said sequence of stored segments, in which information items are concatenated taking their closeness into account.

52. (Amended) Method according to claim 50, wherein said programme generating step (48, 50) is further carried out taking into account said similarity relations to create a sequence of information items in which information items close to disliked information items are de-emphasised and/or in which information items close to liked information items are emphasised.

53. (Amended) Method according to claim 49, wherein said programme generating step (48, 50) is carried out to take account of a selected attribute (e.g. type of music) of said information items, said selected attribute being entered through a corresponding user input (54), to create a sequence of information items containing at least a preponderance of information items falling under said selected attribute.

55. (Amended) Method according to claim 54, wherein said programme generating step (48, 50) is further carried out taking into account said similarity relation relations stored segments in terms of their closeness in said sequence of stored segments, such that a said information item not falling under a said selected attribute (e.g. type of music) is entered in said created sequence if and where it has a predetermined degree of closeness, as determined by said similarity relations, with an adjacent information item of said sequence.

56. (Amended) Method according to claim 49, wherein said programme generating step (48, 50) involves labelling and storing said created sequences as objects which can be selectively exported.

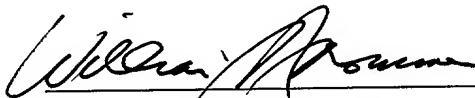
57. (Amended) Method according to claim 33, further comprising the step of importing said created sequences.

### **REMARKS**

Claims 1-57 remain in the application. Claims 3, 5, 6, 10, 12, 14, 17, 20, 22, 24, 25, 28-32, 35-37, 39, 41, 43, 46, 48, 50, 52, 53, 55, 56 and 57 have been amended to eliminate multiple dependencies. Attached hereto is a marked up version of the changes made to claims 3, 5, 6, 10, 12, 14, 17, 20, 22, 24, 25, 28-32, 35-37, 39, 41, 43, 46, 48, 50, 52, 53, 55, 56 and 57 by the current amendment. The attached page is captioned **"Version with markings to show changes made."** The filing fee has been calculated based upon these amendments to the claims.

Respectfully submitted,

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**VERSION WITH MARKINGS TO SHOW CHANGES MADE****In the claims:**

3. (Amended) Apparatus according to claim 1 ~~or~~ 2, wherein said segmentation means (6) is adapted to receive segmentation data (4) through a second input (12) separate from said information (2) to be stored.
5. (Amended) Apparatus according to claim 1 ~~or~~ 2, wherein said segmentation means (6) is adapted to extract said segmentation data (4) from said sequence of information.
6. (Amended) Apparatus according to claim 1 ~~any one of claims 1 to 5~~, wherein said input means (11) is adapted to receive said sequence of information (2) in the form audio data, and wherein said segmentation means (6) is operative to form segments (seg.1-seg.n) each corresponding to a music title in said sequence of information.
10. (Amended) Apparatus according to claim 1 ~~any one of claims 1 to 9~~, further comprising:
- identification means (26) connectable to a source of identification data identifying information items in said sequence of information (2), said identification means extracting at least some of said identification data to form an identifier (id.1-id.n), and
  - combining means (28) for combining with a given segment (seg.i) an identifier (id.i) corresponding thereto,
- said storage means (32) further being arranged to store said identifier in association with said segment.
12. (Amended) Apparatus according to claim 11 ~~and 6~~, wherein said attribute corresponds to at least one type under which a music title can be classed (e.g. Rock, Jazz, Light Classical, ...).



14. (Amended) Apparatus according to claim 1 ~~any one of claims 1 to 13~~, further comprising similarity analysing means (44, 44-1) for producing automatically similarity relations between stored segments (seg.1-seg.n) in terms of their closeness in said sequence of stored segments.

17. (Amended) Apparatus according to claim 14 ~~any one of claims 14 to 16~~, wherein said analysing means (44, 44-1) is arranged to calculate said closeness value for said information item considered (ti) by attributing a first closeness value each time said other information item (tj) appears just before or just after in said sequence,

said first values being cumulated over said sequence to yield a cumulated value indicating the closeness of said pair of information items (ti, tj).

20. (Amended) Apparatus according to claim 1 ~~any one of claims 1 to 19~~, wherein said apparatus further comprises music programme generating means (48, 50) for building a sequence of information items from said stored segments (seg.1-seg.n).

22. (Amended) Apparatus according to claim 20 ~~or 21~~, wherein said programme generating apparatus (48, 50) is operative to build said sequence of information items in response to said similarity relations between stored segments in terms of their closeness in said sequence of stored segments ~~any one of claims 14 to 19~~, in which information items are concatenated taking their closeness into account.

24. (Amended) Apparatus according to claims 22 ~~claims 22 and 23~~, wherein said programme generating means (48, 50) is further responsive to said similarity relations to create a sequence of information items in which information items close to disliked information items are de-emphasised and/or in which information items close to liked information items are emphasised.

25. (Amended) Apparatus according to claim 20 ~~any one of claims 20 to 24~~, wherein said programme generating means (48, 50) is responsive to a selected attribute (e.g. type of music) of

said information items, according to claim 11 ~~any one of claims 11 or 12~~, said selected attribute being entered through a corresponding user input (54), to create a sequence of information items containing at least a preponderance of information items falling under said selected attribute.

28. (Amended) Apparatus according to claim 26 ~~or 27~~, wherein said programme generating means (48, 50) is further responsive to said similarity relation relations ~~according to~~ between stored segments in terms of their closeness in said sequence of stored segments ~~any one of claims 14 to 19~~, such that a said information item not falling under a said selected attribute (e.g. type of music) is entered in said created sequence if and where it has a predetermined degree of closeness, as determined by said similarity relations, with an adjacent information item of said sequence.

29. (Amended) Apparatus according to claim 20 ~~any one claims 20 to 28~~, wherein said programme generating means (48, 50) comprises means for labelling and storing said created sequences as objects which can be selectively exported outside said apparatus.

30. (Amended) Apparatus according to claim 1 ~~any one claims 1 to 29~~, further comprising means for importing said created sequences.

31. (Amended) Apparatus according to claim 1 ~~any one of claims 1 to 30~~ connected to playback means for receiving said segments of a selected created sequence and expressing the data contained therein in a form intelligible to a user (e.g. music, images, etc.).

32. (Amended) Use of the apparatus according to claim 1 ~~any one of claims 1 to 31~~ for producing at least one taste, said taste being a user taste comprised of a sequence of information items produced by taking account feedback from said user, or a generic taste comprised of a sequence.

35. (Amended) Method according to claim 33 ~~3~~, wherein said segmentation data (4) is extracted from a website associated to a source of said sequence of information (2).

36. (Amended) Method according to claim 33 ~~or 34~~, wherein said segmentation data (4) is extracted from said sequence of information.

37. (Amended) Method according to claim 33 ~~any one of claims 33 to 36~~, wherein said sequence of information (2) is received in the form audio data, and wherein said segmentation (6) serves to form segments (seg.1-seg.n) each corresponding to a music title in said sequence of information.

39. (Amended) Method according to claim 33 ~~any one of claims 33 to 38~~, further comprising the steps of:

- identifying (26) from a source of identification data identifying information items in said sequence of information (2), said identification step extracting at least some of said identification data to form an identifier (id.1-id.n), and

- combining (28) for with a given segment (seg.i) an identifier (id.i) corresponding thereto,

said identifier being stored (32) in association with said segment.

41. (Amended) Method according to claim 37 ~~and 40~~, wherein said attribute corresponds to at least one type under which a music title can be classed (e.g. Rock, Jazz, Light Classical, ...).

43. (Amended) Method according to claim 33 ~~any one of claims 33 to 42~~, further comprising the steps (44, 44-1) of producing automatically similarity relations between stored segments (seg.1-seg.n) in terms of their closeness in said sequence of stored segments.

46. (Amended) Apparatus according to claim 44 ~~any one of claim 43 to 45~~, wherein said analysing step (44, 44-1) involves calculating said closeness value for said information item

considered (ti) by attributing a first closeness value each time said other information item (tj) appears just before or just after in said sequence,

said first values being cumulated over said sequence to yield a cumulated value indicating the closeness of said pair of information items (ti, tj).

48. (Amended) Method according to claim 33 ~~any one of claims 33 to 47~~, further comprising the step of generating (48, 50) music programme generating by building a sequence of information items from said stored segments (seg.1-seg.n).

50. (Amended) Method according to claim 48 ~~or 49~~, wherein said programme generating step (48, 50) involves building said sequence of information items in response to said similarity relations ~~according to~~ between stored segments in terms of their closeness in said sequence of stored segments ~~any one of claims 43 to 47~~, in which information items are concatenated taking their closeness into account.

52. (Amended) Method according to claim 50 ~~or 51~~, wherein said programme generating means step (48, 50) is further carried out taking into account said similarity relations to create a sequence of information items in which information items close to disliked information items are de-emphasised and/or in which information items close to liked information items are emphasised.

53. (Amended) Method according to claim 49 ~~any one of claims 49 to 52~~, wherein said programme generating step (48, 50) is carried out to take account of a selected attribute (e.g. type of music) of said information items, ~~according to claim 41 or 42~~, said selected attribute being entered through a corresponding user input (54), to create a sequence of information items containing at least a preponderance of information items falling under said selected attribute.

55. (Amended) Method according to claim 54, wherein said programme generating step (48, 50) is further carried out taking into account said similarity relation relations ~~according to~~ between stored segments in terms of their closeness in said sequence of stored segments ~~any~~ ~~one of claims 43 to 47~~, such that a said information item not falling under a said selected attribute (e.g. type of music) is entered in said created sequence if and where it has a predetermined degree of closeness, as determined by said similarity relations, with an adjacent information item of said sequence.

56. (Amended) Method according to claim 49 ~~any one claims 49 to 55~~, wherein said programme generating step (48, 50) involves labelling and storing said created sequences as objects which can be selectively exported.

57. (Amended) Method according to claim 33 ~~any one claims 33 to 56~~, further comprising the step of importing said created sequences.